

**DESIGN, ENGINEERING AND  
TECHNOLOGY:  
ENTERPRISE THROUGH CRAFT**  
Access 3

**Second edition – published April 2000**

**NOTE OF CHANGES TO ACCESS 3 ARRANGEMENTS  
SECOND EDITION TO BE PUBLISHED APRIL 2000**

**CLUSTER TITLE:** Design, Engineering and Technology:  
Enterprise Through Craft (Access 3)

**CLUSTER NUMBER:** C080 09

**National Cluster Specification**

Cluster Details: Minor modifications to text  
Core skills statements inserted

**National Unit Specification**

<b>D534 09</b> <i>Working with Craft Tools: An Introduction (Acc 3)</i>	Outcome 1	Additional guidance on evidence
	Outcome 2	Additional guidance on evidence
<b>D535 09</b> <i>Practical Craft Skills (Acc 3)</i>	Outcome 2	Rewritten
	Outcome 4	Deleted as evaluation is covered in the unit Craftwork Enterprise
<b>D536 09</b> <i>Craftwork Enterprise (Acc 3)</i>	Some PCs reworded	
		Addition of marketing and researching marketability of products or service as alternative to selling products
		Additional information on evaluation of products

## National Cluster

### DESIGN, ENGINEERING AND TECHNOLOGY: ENTERPRISE THROUGH CRAFT (ACCESS 3)

**CLUSTER NUMBER**            C080 09

#### STRUCTURE

This programme of study has three mandatory units, as follows:

<i>D534 09</i>	<i>Working with Craft Tools: An Introduction (Acc 3)</i>	<i>1 credit (40 hours)</i>
<i>D535 09</i>	<i>Practical Craft Skills (Acc 3)</i>	<i>1 credit (40 hours)</i>
<i>D536 09</i>	<i>Craftwork Enterprise (Acc 3)</i>	<i>1 credit (40 hours)</i>

Although the cluster can be taught successfully in the sequence indicated above, it does allow for a variety of strategies for integration across units. In particular it is recommended that the Craftwork Enterprise unit forms the basis of the programme of study through which the other two units can be delivered.

In common with all clusters, this programme of study includes 40 hours over and above the 120 hours for the component units. This may be used for induction, extending the range of teaching and learning approaches, support consolidation, integration of learning and preparation for assessment. This time is an important element of the programme of study and advice on its use is included in the cluster details.

#### RECOMMENDED ENTRY

Entry is at the discretion of the centre.

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#### Administrative Information

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## National Cluster: general information (cont)

**CLUSTER** Design, Engineering and Technology:  
Enterprise Through Craft (Access 3)

### CORE SKILLS

This cluster gives automatic certification of the following:

<b>Complete core skills for the cluster</b>	None	
<b>Core skills components for the cluster</b>	Planning and Organising	Acc 3
	Reviewing and Evaluating	Acc 3

For information about the automatic certification of core skills for any individual unit in this cluster, please refer to the general information section at the beginning of the unit.

Additional information about core skills is published in *Automatic Certification of Core Skills in National Qualifications* (SQA, 1999).

## **National Cluster: details**

**CLUSTER**            Design, Engineering and Technology:  
Enterprise Through Craft (Access 3)

### **RATIONALE**

Practical creativity exemplifies mankind's need to be able to control and master tools and materials. The sense of achievement that is experienced at the successful completion of a practical product is immense, and the value of this achievement to the development of the personal and social aspects of a candidate's education cannot be overstated. Practical creativity fosters qualities of self-esteem, technological confidence, self-discipline and maturity, all of which are essential attributes not only for candidates in mainstream education, but also for those candidates with special educational needs.

This programme of study will contribute to the knowledge, understanding and practical experience of the candidate whose aspirations and abilities are towards practical work. They may be considering education or training in construction and will benefit from studies in the basic practical aspects of such work, focusing on the practical.

Mature candidates who are returning to mainstream education, but who sampled the workshop environment in secondary education, may wish to return to education at this level in order to gain experience and skills that they see as being useful and worthwhile in adult life.

The fundamental characteristics of the programme of study are of a practical nature. It is workshop-based and provides many skills which are appropriate to a wide range of work environments.

Enterprise is about using imagination, developing ideas and using them. In this cluster, enterprise is developed through the creation and maintenance of a project which does not necessarily have to be profit-making.

The enterprise element of the programme of study will provide a vehicle through which candidates will be allowed to experience, develop and provide evidence of:

- interpersonal skills
- marketing skills
- the value of tools in various work areas
- tool skills
- working as a team
- evaluation skills

The Design, Engineering and Technology (DET) framework proposes a range of units and courses in practical craft skills, ranging from Access 2 to Intermediate 2, which sets out to provide for a wide variety of candidate needs. These courses and units are intended for use in both schools and further education.

### **Aims**

The aims of the cluster are:

- to foster practical skills in the creation of artefacts
- to accumulate knowledge, understanding and skills over a range of practical activities
- to encourage interpersonal skills and awareness of the advantages of working as part of a team
- to highlight the importance of safety and encourage responsible attitudes in the work environment
- to contribute to personal development, in particular to practical capability

## National Cluster: details (cont)

**CLUSTER**            Design, Engineering and Technology:  
Enterprise Through Craft (Access 3)

### CONTENT

The cluster in Enterprise Through Craft is intended to suit the needs of candidates who are interested in creative practical work for personal reasons, candidates who wish to progress to similar work in industry, and candidates with special educational needs who would derive particular benefit from such activities.

Undertaking the cluster as a coherent whole offers a number of benefits:

- together, the three component units offer opportunities for delivery as a coherent, integrated experience
- balance and breadth of candidates' experiences and learning will be promoted
- practical activity may be integrated
- skills and abilities developed through practical activity support learning as a whole
- activities in enterprise will give a realistic context in which to integrate work across the group of units
- a candidate's ability to sustain, work at and bring to a conclusion, lines of thought, decision making and action, are developed on an individual basis and in groups

Although the programme can be taught successfully in the sequence indicated in the general information, it does allow for a variety of strategies for integration across units. Teachers/lecturers are encouraged to adopt a style which is most suitable to the prior knowledge and experience of the candidates. The increase in understanding which accrues from the integration possible in the cluster provides added benefit beyond that gained when candidates study a free-standing unit. The nature of the programme encourages the generation of enough evidence to allow an integrated approach to assessment, which will satisfy the requirements of most unit outcomes and performance criteria.

The units which make up the programme of study have been designed to be relevant to promote enterprise through practical craft and to provide a meaningful and motivating learning experience. Candidates will develop skills in marking out, using tools, working with materials, and using and caring for equipment. Apart from giving an insight into industrial practice, such studies help with the development of self-confidence, manual dexterity and control, perseverance, maturity and spatial awareness.

The following is a brief description of the purpose and content of each unit.

#### ***Working with Tools: An Introduction***

The aim of this area of study is to develop the candidate's appreciation of the value of tools and equipment generally, so that a responsible attitude is developed towards the equipment without necessarily being adept at using it. Tools in this context refers to 'the tools of the trade', whether hand tools or sophisticated equipment.

## National Cluster: details (cont)

### **CLUSTER**      Design, Engineering and Technology: Enterprise Through Craft (Access 3)

Candidates will learn to recognise and use a range of common hand tools. This will include learning about care and storage, the recognition of common malfunctions and stages of craftwork within a multi-craft environment.

This unit will provide an introduction for those unfamiliar with a practical workshop environment. The following induction is proposed:

- a tour of the workshop facilities
- how the course relates to previous experiences
- general safety, and explanations of conduct and acceptable attitudes in a workshop environment
- structure of the course
- outline of the content of the units
- general assessment requirements of the units and course
- advice for candidates on how to access information for themselves
- progression available beyond course completion

Appropriate video material, for example those supplied by CITB, to illustrate the scope of craftwork and introduce craft processes and safety might be introduced at this stage.

Candidates will have the opportunity to learn to identify a limited range of the tools associated with particular types of employment. In addition, they will learn how to use a range of tools safely. The value of tools and their place in the workshop environment will be taught.

The range of areas of work for consideration in this unit should be focused on those covered by this course, in particular woodworking and metalworking (engineering). However, a broader picture of tools and equipment from a wider range of employment will be beneficial at the introduction to the unit, to give an appreciation of the benefit of tools to industry. The areas of work should be relevant to the candidate's vocational interest. Although this area of the coherent group of units is based on the use of tools and equipment, the candidate should also be enabled to develop communication skills and personal/interpersonal skills and to form working relationships with other candidates.

#### ***Practical Craft Skills***

In this section of the programme, candidates will develop the competence necessary to complete a range of activities relating to craft skills, using a variety of materials. This will usually be taught in an integrated way with the other areas of the course, so that candidates learn about the materials in relation to the tools used to work with those materials, and the types of artefacts most appropriate to particular materials.

Candidates will make a range of artefacts from a variety of materials that could include wood, metal and plastic from pre-prepared simple working drawings which will be available through the National Assessment Bank. This will include the preparation and assembly of a number of artefacts. The choice of artefacts should take account of different settings or contexts and will depend upon the age and experience of the candidates. Opportunities to participate in an appropriate range of experiences are of great value to candidates.

The scale of work should be appropriate to function and as large as material provision will permit.

## **National Cluster: details (cont)**

### **CLUSTER**          Design, Engineering and Technology: Enterprise Through Craft (Access 3)

Candidates will learn to identify the materials suitable for each artefact manufactured and will produce a range of artefacts. It is important that candidates are able to describe and carry out health and safety instructions in the workshop.

#### ***Craftwork Enterprise***

Work in enterprise should be the vehicle through which candidates can demonstrate evidence of basic skills in planning; evaluating; communicating; negotiating; decision making; problem solving; role playing; and cooperating with others in working as a team in the creation of a group product with a marketable value.

It is proposed that a thematic approach should be adopted for the enterprise unit, and a list of artefacts could be generated under such headings as: nursery toys; animal cages; boxes to hold games, household items and tools.

Group discussion and joint planning are key features of this aspect of this coherent group of units and as such should be structured carefully. It is likely that candidates will need to develop skills in these, as well as practical workshop skills.

The extent of the enterprise activity will depend largely on the age and ability of the candidate group, for example, a group of returning learners would perhaps require more scope for developing themes than a group of younger and less experienced candidates.

Candidates will learn how to evaluate products made and activities carried out on both an individual basis and where working as part of a team.

#### **ASSESSMENT**

Candidates should be aware of assessment criteria and instruments. It is anticipated that ongoing assessment will take place, informing and supporting candidates. A variety of approaches to assessment may be appropriate. The units which comprise the cluster will be assessed internally. Details of the internal assessment are provided in the unit specification. Candidates will prepare for the outcomes of each unit, which will evolve through learning and activities across the units.

A number of assessment instruments can be used across the component units and these offer opportunities for a more integrated approach. Wherever possible, evidence for assessment is gathered as part of the integrated coursework. The instruments of assessment which can be used in this way include:

- observation of practical skills using checklists
- assessment of candidate log-books
- oral assessment, particularly for health and safety

Further details of specific assessment items are given in the unit specifications.

## National Cluster: details (cont)

**CLUSTER**            Design, Engineering and Technology:  
Enterprise Through Craft (Access 3)

### APPROACHES TO LEARNING AND TEACHING

It is suggested that the units *Working with Tools: An Introduction* and *Practical Craft Skills* might be taught as free-standing units, but that the *Craftwork Enterprise* unit is best integrated with the other two units.

The candidate should be briefly introduced to a broad range of work and the tools and equipment associated with tasks undertaken in these areas. This should be focused on the areas specific to the course. It is recommended that the candidate assembles, with support, a personal information folder, which could contain photographs/drawings of tools in work area sections, together with written identification of the names of, and notes on, the use of the tools. Photographs of people at work using appropriate tools could also be included in the folder. In addition, a log could be compiled by the candidate in relation to tasks undertaken.

Together with safe working practices, health and safety regulations should be emphasised and should form an integral part of the course. Candidates should be made aware of the need for tidy working practices, safe handling and storage of tools and renewal and repair procedures. The dangers of incorrect use of tools and equipment should be highlighted, including circumstances where incorrect use and using poorly maintained tools can lead to accidents. Emergency procedures, behaviour, protective clothing, safe use and handling of tools, and caring for a clean and tidy work environment should be covered in general, and specifically where there are special requirements.

The candidate should be encouraged to gain practical experience in using a range of workshop tools relevant to tasks in the selected areas of work. This aspect would naturally merge with the work of the *Practical Craft Skills* unit.

The importance of proper care and the tidy storage of tools should be emphasised. Where in situ or portable electrical power tools or equipment are being used, candidates should be aware of switching-off/closing-down procedures, and of safe storage procedures when tools are not being used or are being set up. The candidate should also be made aware, where appropriate, of occasions where equipment is not switched off/closed down, for example, security equipment.

Candidates should be encouraged to question the uses of particular tools/equipment and consider how a job might have to be done, or if a job could be done at all without the tool. This could lead to consideration of the value of tools to employees, where, for example, the use of tools means that the job can be done more quickly or efficiently, or the physical assistance which tools provide. The use of power tools on a site where there are no air or electrical supplies might be mentioned.

The candidate should be made aware of the need to use the correct tool for a specific job. Appropriate and inappropriate uses of tools should be examined and candidates made aware of the dangers of the inappropriate use of tools.

While it is not appropriate at this level for candidates to make decisions concerning the renewal, replacement or repair of tools, they should be introduced to these issues, paying particular attention to the need to recognise and report to supervisors/employers, incidences of any tools not working properly or needing repair. A basic awareness of the financial costs involved in renewals or repairs should also be developed, to enable the candidate to gain an overall appreciation of the value of tools.

## **National Cluster: details (cont)**

### **CLUSTER**          Design, Engineering and Technology: Enterprise Through Craft (Access 3)

This work should be presented in an activity-based environment, using a programme of exercises which will interest the candidate with regard to his/her main vocational interests. The outcomes and the unit should not be delivered in isolation, but should be integrated within the programme.

The teacher/lecturer should fully explain and demonstrate the use of each tool, prior to use by the candidate. Terminology and procedures should also be introduced in the context of the practical exercises. Posters describing tools and equipment, information charts and tables should be on display to assist the candidate with correct identification and selection of tools.

Visits could be arranged to different trade or retail outlets, where specific tools and equipment are sold, for example, ironmongers, garden centres, DIY stores, builders' merchants, office suppliers.

A display of broken or misused tools could be set up, and the ineffectiveness of dull or blunt tools could be demonstrated.

Opportunities should be available, depending upon the activity, for the candidate to work individually, in pairs or in small groups.

As 'enterprise' can be defined as the activity of bringing together human, physical and financial resources to achieve objectives, a business approach is suggested but not to the detriment of the learning process and of candidates developing empathy and having ownership of the project.

Co-operation with the Business Studies Department, or staff delivering Social and Vocational Skills, for example, would obviously be desirable for experience of office practice. Opportunities involving a mix of word-processing, desk-top publishing and computer graphics would equip candidates for the presentation techniques that would undoubtedly play a significant part in the enterprise activity where this is practicable.

It is suggested that a thematic approach might be adopted for the enterprise elements of the cluster. A list of artefacts could be generated under such headings as nursery toys, animal cages, boxes to hold games, household items, and tools.

#### **Materials**

While candidates should experience working with a range of materials such as softwood, mild steel and acrylic, it is envisaged at this stage that these materials should be pre-cut and preformed for convenience and to provide motivation. Machined softwood in strip or plank form, and manufactured board of appropriate thickness could be presented for use in convenient panel sizes, and mild steel, aluminum and plastic could be cut from preformed sections, as required.

The success of a product or products generally depends upon effective use of marketing, decision making, negotiation, communication skills and the willingness of the 'production team' to recognise the interdependence of their roles.

## National Cluster: details (cont)

### **CLUSTER** Design, Engineering and Technology: Enterprise Through Craft (Access 3)

A broad topic such as nursery toys is one which guarantees the interest and motivation of candidates, because of their involvement as consumers, and from which a variety of enterprise projects could be developed, for example:

- making toys to sell
- providing a service

As the essence of enterprise is not necessarily a profit-seeking business but the creation and maintenance of projects, candidates can easily develop enterprising qualities by undertaking the manufacture of larger products. There are many projects which could be tackled in the vicinity of schools and colleges. They include: outdoor garden furniture, plant troughs, decorative bins and boxes, bird tables and boxes, fences and gates, window boxes, pergolas and frames for training plants and trees.

Initial group discussions could make decisions on:

- finding out the need
- planning resources
- initial cost outlay (if any)
- deciding who does what and the timescale
- developing a company structure
- evaluation of the product – will it do the job?

The extent of the enterprise activity will depend largely on the age and ability of the candidate group, for example a group of returning learners would perhaps require more scope for developing themes than a younger and less-experienced group.

In addition, to generate the maximum interest and enthusiasm, the following sequence might be the basis for an approach to the enterprise activity:

- planning the enterprise product construction
- researching the marketability of the product or service
- carrying out the construction processes
- marketing the product or service

The design of the cluster will enable candidates to work alongside others operating at Intermediate 1, affording them opportunities to progress beyond those outcomes which can be achieved at Access 3.

The programme allows 40 hours of additional flexible time. Appropriate activities which could be undertaken might include:

- diagnostic assessment
- consolidation of learning
- additional practice with tools and materials
- additional support
- visits to work environments
- preparation for assessment

## **National Cluster: details (cont)**

**CLUSTER**            Design, Engineering and Technology:  
Enterprise Through Craft (Access 3)

### **SPECIAL NEEDS**

This specification is intended to ensure that there are no artificial barriers to learning or assessment. Special needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering alternative outcomes for units. For information on these, please refer to the SQA document *Guidance on Special Assessment and Certification Arrangements for Candidates with Special Needs/Candidates whose First Language is not English* (SQA, 1998).

### **SUBJECT GUIDES**

A Subject Guide to accompany the Arrangements documents has been produced by the Higher Still Development Unit (HSDU) in partnership with the Scottish Consultative Council on the Curriculum (SCCC) and Scottish Further Education Unit (SFEU). The Guide provides further advice and information about:

- support materials for each cluster
- learning and teaching approaches in addition to the information provided in the Arrangements document
- assessment
- ensuring appropriate access for candidates with special educational needs

The Subject Guide is intended to support the information contained in the Arrangements document. The SQA Arrangements documents contain the standards against which candidates are assessed.

## National Unit Specification: general information

**UNIT** Working with Craft Tools: An Introduction (Access 3)

**NUMBER** D534 09

**CLUSTER** Design, Engineering and Technology:  
Enterprise Through Craft (Access 3)

### SUMMARY

The aim of this unit is to develop the candidate's appreciation of the value of tools and equipment generally, so that he/she will have a responsible attitude towards the use of tools.

### OUTCOMES

- 1 Identify the tools associated with particular activities.
- 2 Use a range of tools appropriately and safely.
- 3 Outline the value of tools in a practical environment.

### RECOMMENDED ENTRY

While entry is at the discretion of the centre, candidates would benefit from some experience in Practical Craft Skills. This might include:

- work in design and technology in the 5 – 14 programme
- participation in a Standard Grade course provided within Departments of Technology or Technical Education
- attainment in Access 2 in Practical Craft Skills units or equivalent

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## **National Unit Specification: general information (cont)**

**UNIT** Working with Craft Tools: An Introduction (Access 3)

### **CREDIT VALUE**

1 credit at Access 3.

### **CORE SKILLS**

There is no automatic certification of core skills or core skills components in this unit.

Additional information about core skills is published in *Automatic Certification of Core Skills in National Qualifications* (SQA, 1999).

## **National Unit Specification: statement of standards**

### **UNIT**                      Working with Craft Tools: An Introduction (Access 3)

Acceptable performance in this unit will be the satisfactory achievement of the standards set out in this part of the unit specification. All sections of the statement of standards are mandatory and cannot be altered without reference to the Scottish Qualifications Authority.

#### **OUTCOME 1**

Identify the tools associated with particular practical activities.

##### **Performance criteria**

- (a) The identification of tools used in particular practical activities is correct.
- (b) The purpose for which particular tools are used is stated accurately.

##### **Evidence requirements**

Observational techniques and oral questions using checklists.

Written and/or oral evidence to show that the candidate can identify tools and give their purpose as in PCs (a) and (b).

#### **OUTCOME 2**

Use a range of tools appropriately and safely.

##### **Performance criteria**

- (a) The tools and equipment to perform given tasks are selected correctly.
- (b) The tools and equipment are used in a correct and effective manner appropriate to the task.
- (c) The tools and equipment are cared for properly and stored correctly after use.
- (d) The use of tools and equipment in carrying out tasks complies with regulations and procedures for safe working practices specified for the learning environment and the activity undertaken.

##### **Evidence requirements**

Evidence of actual performance is required of the candidates:

- the selection of tools
- safe and correct use of tools and equipment and
- care and storage of a minimum three or more tools or items of equipment, one from each of three practical activities, as specified in PCs (a) to (d)

## **National Unit Specification: statement of standards (cont)**

**UNIT** Working with Craft Tools: An Introduction (Access 3)

### **OUTCOME 3**

Outline the value of tools in a practical environment.

#### **Performance criteria**

- (a) The value of tools in a practical environment is stated accurately.
- (b) Awareness of the need to use the correct tool for the job is evident.
- (c) Awareness of the need for replacement and repair of tools is clear.
- (d) The financial cost involved in repair and replacement of tools is correctly identified.

#### **Evidence requirements**

Observation of practical exercises covering all performance criteria, with a checklist for recording evidence.

Written objective questions covering all performance criteria.

Written and/or oral evidence to show that the candidate meets requirements of PCs (a) to (d).

## **National Unit Specification: support notes**

### **UNIT**                      Working with Craft Tools: An Introduction (Access 3)

This part of the unit specification is offered as guidance. The support notes are not mandatory.

While the time allocated to this unit is at the discretion of the centre, the notional design length is 40 hours.

#### **GUIDANCE ON CONTENT AND CONTEXT FOR THIS UNIT**

Candidates will learn to identify and use tools safely within a workshop environment. Predominantly practical in nature, this unit will focus on the range of tools which can be used in practical activities. Where the unit is being delivered as part of a programme of study with Enterprise Through Craft, the tools used in this unit will reflect those to be used in the Enterprise activities. The identification of a range of tools, the use of a number of those tools, and the care of tools, will be learned. In particular, candidates will learn how to identify, use and care for a range of tools in woodworking and metalworking (engineering).

In addition to introducing tools and tool skills, candidates will have the opportunity to develop personal and interpersonal skills and to form working relationships with other candidates.

Further details of the content can be found in the details of the cluster.

#### **GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT**

This unit should be presented in an activity-based environment, using a programme of exercises which will interest the candidate with regard to his/her main vocational interests. The outcomes and the unit should not be delivered in isolation, but should be integrated within the programme.

Opportunities should be available, depending upon the activity, for the candidate to work individually, in pairs or in small groups.

Further details of learning and teaching approaches are to be found in the details in the cluster.

#### **GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT**

The following assessment instruments could be used for an internal assessment of the unit:

- observation of practical exercises covering all performance criteria (a checklist could be used to record the evidence gathered by observation)
- assessment of candidate log-book
- written/oral objective questions covering the performance criteria

The assessment should cover:

- identification of six – nine tools relating to practical activities undertaken and their purposes
- 10 questions relating to the proper care and storage of three or more tools or items of equipment

## **National Unit Specification: support notes (cont)**

**UNIT** Working with Craft Tools: An Introduction (Access 3)

### **SPECIAL NEEDS**

This unit specification is intended to ensure that there are no artificial barriers to learning or assessment. Special needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering alternative outcomes for units. For information on these, please refer to the SQA document *Guidance on Special Assessment and Certification Arrangements for Candidates with Special Needs/Candidates whose First Language is not English* (SQA, 1998).

## National Unit Specification: general information

<b>UNIT</b>	Practical Craft Skills (Access 3)
<b>NUMBER</b>	D535 09
<b>CLUSTER</b>	Design, Engineering and Technology: Enterprise Through Craft (Access 3)

### SUMMARY

The aim of this unit is to develop the competence necessary to complete a range of activities relating to Craft Skills, using a range of materials.

### OUTCOMES

- 1 Identify the materials suitable for each of two artefacts to be manufactured.
- 2 Manufacture two artefacts.
- 3 Evaluate the final product.

### RECOMMENDED ENTRY

While entry is at the discretion of the centre, candidates would benefit from some experience in Practical Craft Skills. This might include:

- work in design and technology in the 5 – 14 programme
- participation in a Standard Grade provided within the Departments of Technology or Technical Education
- attainment in Access 2 in Practical Craft Skills units or equivalent

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## **National Unit Specification: general information (cont)**

**UNIT** Practical Craft Skills (Access 3)

### **CREDIT VALUE**

1 credit at Access 3.

### **CORE SKILLS**

This unit gives automatic certification of the following:

<b>Complete core skills for the unit</b>	None
<b>Core skills components for the unit</b>	Reviewing and Evaluating      Acc 3

Additional information about core skills is published in *Automatic Certification of Core Skills in National Qualifications* (SQA, 1999).

## **National Unit Specification: statement of standards**

### **UNIT**                      Practical Craft Skills (Access 3)

Acceptable performance in this unit will be the satisfactory achievement of the standards set out in this part of the unit specification. All sections of the statement of standards are mandatory and cannot be altered without reference to the Scottish Qualifications Authority.

#### **OUTCOME 1**

Identify the materials suitable for the artefacts to be manufactured.

##### **Performance criteria**

- (a) Materials which are essential to the activity are identified correctly.
- (b) The suitability of essential materials is described correctly in terms of the artefact.
- (c) The preparation of essential materials is described correctly.

##### **Evidence requirements**

Evidence of actual performance related to all performance criteria.  
Written and/or oral evidence of the candidate's ability to determine the correct identification and the purpose of essential materials.

#### **OUTCOME 2**

Manufacture two artefacts.

##### **Performance criteria**

- (a) Use tools correctly in the manufacture of an artefact.
- (b) Manufacture two artefacts according to a sequence given by the teacher/lecturer.

##### **Evidence requirements**

Evidence of candidate performance including:

- observation using checklist of practical activities related to all performance criteria
- assessment of candidate's log

## **National Unit Specification: statement of standards (cont)**

### **UNIT**                      Practical Craft Skills (Access 3)

#### **OUTCOME 3**

Describe health and safety procedures.

#### **Performance criteria**

- (a) Health and safety procedures appropriate to the learning environment are described accurately.
- (b) Health and safety procedures appropriate to allocated activities are complied with.

#### **Evidence requirements**

Written and/or oral assessment which demonstrates understanding of health and safety instructions.  
Evidence of candidate performance in relation to health and safety standards being carried out during practical activities.

## **National Unit Specification: support notes**

### **UNIT Practical Craft Skills (Access 3)**

This part of the unit specification is offered as guidance. The support notes are not mandatory.

While the time allocated to this unit is at the discretion of the centre, the notional design length is 40 hours.

#### **GUIDANCE ON CONTENT AND CONTEXT FOR THIS UNIT**

Candidates will learn how to identify suitable materials for the manufacture of artefacts to be manufactured in the learning environment and to manufacture products using a range of appropriate materials. Health and safety procedures will be learned and applied in a practical workshop environment. Candidates will be required to evaluate components or products which they have produced on an individual basis or as part of a team. Candidates should also have the opportunity to learn about materials and their associated safety procedures which might be encountered in the workplace in a predominantly practical way.

Further details of the content can be found in the details of the cluster.

#### **GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT**

Candidates will learn how to identify materials appropriate to tasks in manufacturing artefacts. In particular, this will be related to the work carried out by candidates in the learning environment; however, it is desirable that candidates be introduced to other materials which they may come across in the workplace. Samples of materials and discussion of their properties and/or the use of videos to demonstrate the practical uses of materials in the workplace are to be encouraged. The use of materials in producing artefacts should be integrated into the work of the cluster along with the work of the other two units. In this way candidates will be able to apply the skills learned in working with tools and in working with materials to make the products or provide the services in the enterprise activity.

Knowledge of health and safety standards and safe working practice are key elements of the coherent group of units and it is important that candidates can describe health and safety procedures, and that they are seen to carry them out when engaged in practical work.

#### **GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT**

The following assessment instruments might be used:

- written/oral objective questions relating to the recognition of suitable materials and the properties of those materials
- observation and use of a checklist to record safe working practice
- assessment of the candidate log-book for a record of processes carried out and evaluation of finished products
- observation of the processes carried out in the manufacture of a product

## **National Unit Specification: support notes (cont)**

**UNIT**                      Practical Craft Skills (Access 3)

### **SPECIAL NEEDS**

This unit specification is intended to ensure that there are no artificial barriers to learning or assessment. Special needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering alternative outcomes for units. For information on these, please refer to the SQA document *Guidance on Special Assessment and Certification Arrangements for Candidates with Special Needs/Candidates whose First Language is not English* (SQA, 1998).

## National Unit Specification: general information

<b>UNIT</b>	Craftwork Enterprise (Access 3)
<b>NUMBER</b>	D536 09
<b>CLUSTER</b>	Design, Engineering and Technology: Enterprise Through Craft (Access 3)

### SUMMARY

This unit is designed to be used in the manufacture and marketing of a product as a group activity.

### OUTCOMES

- 1 Explain the initial planning of the enterprise.
- 2 Perform individual practical tasks as part of a team engaged in the manufacture of a product.
- 3 Carry out work in accordance with current safety procedures and practices.
- 4 Perform individual tasks as part of a team engaged in selling, marketing or providing a product.

### RECOMMENDED ENTRY

While entry is at the discretion of the centre, candidates would benefit from some experience in Practical Craft Skills. This might include:

- work in design and technology in the 5 – 14 programme
- participation in a Standard Grade course, provided within Departments of Technology or Technical Education
- attainment in Access 2 in Practical Craft Skills units or equivalent

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### Administrative Information

<b>Superclass:</b>	WA
<b>Publication date:</b>	April 2000
<b>Source:</b>	Scottish Qualifications Authority
<b>Version:</b>	02

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## **National Unit Specification: general information (cont)**

**UNIT**                      Craftwork Enterprise (Access 3)

### **CREDIT VALUE**

1 credit at Access 3.

### **CORE SKILLS**

This unit gives automatic certification of the following:

<b>Complete core skills for the unit</b>	None	
<b>Core skills components for the unit</b>	Planning and Organising	Acc 3
	Reviewing and Evaluating	Acc 3

Additional information about core skills is published in *Automatic Certification of Core Skills in National Qualifications* (SQA, 1999).

## **National Unit Specification: statement of standards**

### **UNIT**                      **Craftwork Enterprise (Access 3)**

Acceptable performance in this unit will be the satisfactory achievement of the standards set out in this part of the unit specification. All sections of the statement of standards are mandatory and cannot be altered without reference to the Scottish Qualifications Authority.

#### **OUTCOME 1**

Explain the initial planning of the enterprise.

##### **Performance criteria**

- (a) The objectives of the enterprise are explained correctly.
- (b) Personal responsibilities are explained correctly.
- (c) The advantages of team work are explained correctly.
- (d) An active role is played in initial group discussion.

##### **Evidence requirements**

Written and/or oral evidence of the candidate's ability to explain the initial planning of the enterprise.

#### **OUTCOME 2**

Perform individual practical tasks as part of a team engaged in the manufacture of a product.

##### **Performance criteria**

- (a) Basic instructions are carried out correctly.
- (b) Equipment appropriate to the task is selected.
- (c) The sequence of operations is followed correctly.
- (d) Equipment is used correctly.
- (e) Individual tasks within the final group assembly are correctly described in detail.

##### **Evidence requirements**

Performance evidence of the candidate's ability to select and use equipment, follow a sequence of operations and work within a group as specified in PCs (a) to (d).

Written and/or oral evidence of the candidate's ability to describe individual tasks in relation to group work in PC (e).

## **National Unit Specification: statement of standards (cont)**

### **UNIT**                      **Craftwork Enterprise (Access 3)**

#### **OUTCOME 3**

Carry out work in accordance with current safety procedures and practices.

##### **Performance criteria**

- (a) Safety instructions with regard to the current use and care of hand tools are complied with.
- (b) Safety instructions with regard to the use of basic machine tools are complied with.
- (c) Work is carried out in an orderly and safe manner in the work-place.
- (d) The artefact is evaluated in terms of safety.

##### **Evidence requirements**

Evidence of actual performance is required of the candidate's ability to carry out tasks as specified in PCs (a) – (d).

#### **OUTCOME 4**

Perform individual tasks as part of a team engaged in selling, marketing or providing a product.

##### **Performance criteria**

- (a) The points which define the marketable value of an artefact are described correctly.
- (b) Ways of improving the finished product to enhance its fitness for purpose value are described accurately.
- (c) An active role is played in the process of selling, marketing or providing the product.

##### **Evidence requirements**

Evidence of actual performance of the candidate's ability to evaluate the finished product in terms of fitness for purpose and potential for selling.

## **National Unit Specification: support notes**

### **UNIT                      Craftwork Enterprise (Access 3)**

This part of the unit specification is offered as guidance. The support notes are not mandatory.

While the time allocated to this unit is at the discretion of the centre, the notional design length is 40 hours.

#### **GUIDANCE ON CONTENT AND CONTEXT FOR THIS UNIT**

The purpose of this unit is to provide a practical context for the development of craftwork skills. The process involved in marketing a product either for selling or for providing a non-profit-making service will require candidates to work as a team. In particular, candidates will learn about marketing their product(s), and about the essential safety features necessary when manufacturing a product for sale or use. For further information on the content, refer to the details of the cluster.

#### **GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT**

This unit should be approached through teamwork, and it is therefore important that candidates are taught the skills necessary to co-operating and joint project working. Carrying out the work of this unit will enable the work of the other two units in Enterprise Through Craft to be integrated in an activity-based context. It is envisaged that where candidates are working on a product or products it is likely that individual candidates will undertake particular tasks in the manufacturing process. However, teachers/lecturers will need to ensure that all of the candidates contribute to the process in a way that will enable them to overtake the learning outcomes for the unit. To this end, it may be desirable for candidates to take on more than one task in the manufacture of the product(s). It is recommended that candidates move around the tasks involved in the group manufacture. For further information about learning and teaching approaches, refer to the details of the cluster.

The evaluation of products, whether completed on an individual basis or as part of a team project should be developed, and candidates should keep a log which records the plan and specification for the product, and the problems encountered and solved in the making process so that final evaluation can reflect on this process as well as the completed component or project.

#### **GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT**

Assessment would generally be by observation using preset checklists. In addition the candidate's log should generate evidence of the processes undertaken, not only by individual candidates, but also the work of the team engaged in making the products. For performance criteria requiring an explanation or description by candidates, written or oral responses would be appropriate. The final product(s) as well as any components completed by individual candidates should be assessed by the teacher/lecturer.

## **National Unit Specification: support notes (cont)**

**UNIT**                      Craftwork Enterprise (Access 3)

### **SPECIAL NEEDS**

This unit specification is intended to ensure that there are no artificial barriers to learning or assessment. Special needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering alternative outcomes for units. For information on these, please refer to the SQA document *Guidance on Special Assessment and Certification Arrangements for Candidates with Special Needs/Candidates whose First Language is not English* (SQA, 1998).